



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

July 16, 1999

Mr. A. Alan Blind
Vice President, Nuclear Power
Consolidated Edison Company
of New York, Inc.
Broadway and Bleakley Avenue
Buchanan, NY 10511

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION TO SUPPLEMENT RESPONSE
PROVIDED FOR GENERIC LETTER 97-05 (TAC NO. MA0468)

Dear Mr. Blind:

The NRC staff is currently reviewing information regarding steam generator tube inspection practices submitted in response to Generic Letter 97-05, "Steam Generator Tube Inspection Techniques," to ensure that each licensee is inspecting in compliance with the current licensing basis for their plant(s). By letter dated October 28, 1998, Consolidated Edison Company of New York, Inc., (Con Ed) the licensee for Indian Point Nuclear Generating Unit No. 2 (IP2), submitted information in response to a request for additional information (RAI) from the NRC by letter dated September 25, 1998. The NRC staff has reviewed Con Ed's response and concluded that further information necessary to determine whether the steam generator tube inspection practices used at IP2 are consistent with the current licensing basis. Specifically, Con Ed appears to have concluded that signals observed during eddy current inspections are the result of tube pitting based on an assumption regarding the capabilities of inspection probes rather than the results of a qualification program completed in accordance with the requirements of Appendix B to 10 CFR Part 50 or some other technical assessment.

Con Ed indicated in its response dated October 28, 1998, that its basis for concluding that indications in the IP2 steam generators are the result of pitting stems from its assumption that "the +Point probe can distinguish between pitting and volumetric indications." The staff notes that pitting is one form of volumetric degradation. In addition, the NRC is unaware of any successful industry or plant-specific qualification of the plus point probe to accurately distinguish between pits and other volumetric degradation modes. In fact, at least one utility has attempted to qualify this probe for this task in the past, but these efforts were unsuccessful. Therefore, Con Ed's statement on the abilities of the plus point probe appears to be inconsistent with conclusions reached in at least one test program carried out by another utility.

When inspecting with a plus point probe, the signal observed in a c-scan appears to be an indication with a three-dimensional response (i.e., length, width, voltage amplitude). In some circumstances, volumetric indications create a return to null signal when the coil is centered over the degraded area. This is evident as a dip in the signal voltage response. This phenomenon can also be observed in the response of some calibration standard reflectors (e.g., flat-bottomed holes). This characteristic is not unique to pitting or calibration standard reflectors. Inspections of intergranular attack (IGA) degradation may also cause the signal to return to null that some consider as a characteristic unique to pitting degradation. Therefore, the staff is unclear as to the technical bases used by Con Ed to conclude that the indications at

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IP2 are the result of tube pits in the absence of quantitative criteria applied to the eddy current signal response to distinguish between intergranular attack and pitting or a discussion of pulled tube destructive examination results and inspection experience from other plants.

The staff requested additional information regarding the qualification of the plus point probe and its ability to distinguish between pit and pit-like steam generator tube indications. Alternatively, a description of the technical basis for characterizing the volumetric indications observed in the IP2 steam generators as pits rather than some other mode of volumetric degradation would be acceptable.

The response to this RAI is requested by August 20, 1999. This date was discussed and agreed upon with R. Louie of your staff.

Sincerely,

Original signed by:

Jefferey F. Harold, Project Manager, Section 1
Project Directorate 1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-333

cc: See next page

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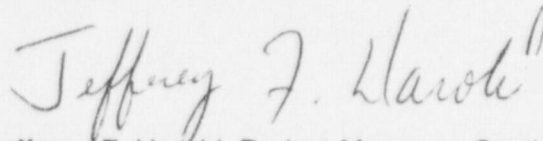
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Sincerely,

A handwritten signature in cursive script that reads "Jefferey F. Harold".

Jefferey F. Harold, Project Manager, Section 1
Project Directorate 1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-333

cc: See next page

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